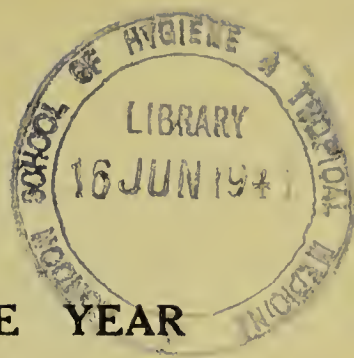


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TRENGGANU.



Annual Medical and Sanitary Report
For the Year 1932



TRENGGANU.

ANNUAL MEDICAL AND SANITARY REPORT FOR THE YEAR ENDING 31st DECEMBER, 1932.

I. ADMINISTRATION.

(a) STAFF.

Dr. J. Portelly proceeded to Johore on transfer and Dr. G. I. H. Braine assumed duty as Acting Chief Medical Officer on the 17th of September.

The principal subordinate appointments at the end of the year were:—

I. Kuala Trengganu.

(a) General Hospital.

- 1 Dresser-in-charge, Hospital.
- 1 Dresser Grade II.
- 4 Dressers Grade III.
- 3 Probationer Dressers.
- 1 Acting Maternity Nurse.
- 1 Steward.
- 1 Assistant Storekeeper.
- 2 Clerks.

(b) Town Dispensary and Welfare Centre:—

- 1 Dresser Grade I.
- 1 Probationer Dresser.
- 1 Acting Maternity Nurse.

(The Town Dispensary Staff is also in charge of the Gaol Hospital and of the Mental Hospital Section of the Gaol.)

(c) Outdoor duties and Registration of Births and Deaths:—

- 1 Probationer Sanitary Inspector.
- 1 Assistant Sanitary Inspector.
- 1 Vaccinator.

II. Kemaman Dispensary:—

- 1 Dresser Grade II.
- 1 Probationer Dresser.
- 1 Vaccinator

III. Besut Dispensary:—

- 1 Dresser Grade III.
- 1 Vaccinator

IV. Dungun Dispensary:—

- 1 Dresser Grade III.
- 1 Vaccinator

V. Kuala Brang Dispensary:—

- 1 Dresser Grade III.

VI. Temporary Dispensaries at Stiu and Kemasik. Two ungraded travelling dressers are in charge of these. The main part of their work consists in travelling in their districts and they receive a special travelling allowance for this purpose.

During the year, certain changes were made for reasons of economy. In February, one Grade I dresser and one Grade II dresser who had been seconded from Singapore were returned and two Probationer Dressers were recruited locally. The services of a Clerk and of the Sanitary Inspector at Kemaman were terminated.

The services of an experienced Sanitary Inspector at Kuala Trengganu were terminated for reasons other than economy and an inexperienced local Malay was recruited as Probationer Sanitary Inspector in his place.

During June, examinations for Dressers were instituted. Mr. C. L. Fernandez passed the necessary examination for Grade I and Syed Ibrahim for Grade III. Dressers were allowed, however, to go elsewhere for examination and in December Mr. R. M. Iyer passed the Grade I examination at Singapore with distinction.

A new post of Assistant Sanitary Inspector was created during the year and this was made possible by the retrenchment of two attendants. This officer assists the Chief Medical Officer and others in outdoor duties, helps in the preparation of the operation-theatre and assists in the laboratory and the office.

During November, the post of vaccinator was placed on a sounder basis. Instead of receiving a salary of \$12/- per mensem and 10 cents for each person vaccinated, if they were able to pay, each now receives \$30/- per mensem and a bicycle allowance while vaccination is made free.

NOTE:—The grading of dressers in Trengganu is in accordance with a scheme which follows that adopted by the Straits Settlements Government.

(b) LEGISLATION AFFECTING PUBLIC HEALTH ENACTED DURING THE YEAR:—

The following Enactments (Undang²) were passed:—

- (1) A Mental Disorders Enactment, No. 1 of 1351, was passed on 5th June, 1932.
- (2) An Enactment to amend the Medical Registration Enactment of 1346, No. 2 of 1351, was passed on 8th November, 1932.
- (3) A Deleterious Drugs Enactment was passed but was not published. It will shortly be repealed and replaced by a new enactment. The only legislation which is actually in force at the moment is a Customs Regulation under which the import of such drugs is prohibited except when consigned to the Chief Medical Officer.

A Public Health Enactment is in the course of preparation.

The following Regulations (Peratoran) were passed:—

- (1) Registration of Dentists, No. 2 of 1350 (6th May, 1932.)
- (2) Registration of Druggists, No. 3 of 1350 (6th May, 1932.)

The following Proclamations (Ishtihar²) were issued:—

- (1) No. 18 of 1351 was issued on 31st August, 1931; it empowered the Medical Authority to disinfect wells during epidemics.
- (2) No. 19 of 1351, concerning Rabies, was issued on 5th September, 1932.
- (3) No. 40 of 1351, which was issued on 28th November, 1932, made vaccination free and placed the vaccinators on a new scale of remuneration.

(c) FINANCE.

Owing to the fall in revenue of the State during the course of the year, rigid economy had to be enforced in the latter half of the year and substantial savings had to be shown in most of the items of the annually recurrent expenditure. The Estimates were \$72,617.00 while the actual expenditure was \$61,623.89 and was made up as follows:—

Personal Emoluments	..	37,973.80
Annually Recurrent	..	23,417.44
Special Votes	.. ..	232.65
Total	..	<u>61,623.89</u>

The Revenue, which was \$446.35, showed a marked fall; this was due to the fact that very few patients can now pay and that no patients are received now from the Nippon Mining Co., Dungun. All Malays are treated free.

The following table compares the financial position with that of previous years:—

Year	Revenue	Total Expenditure Medical Dept.	Total Revenue of State.	Percentage of Medical Expenditure to revenue of State.
1346	1,049.55	52,755.78	1,402,150.63	3.76%
1347	1,468.15	61,888.61	1,361,026.00	4.5%
1348	1,153.81	65,627.33	1,391,470.82	4.7%
1349	1,258.95	76,956.21	1,235,230.00	6.72%
May- Dec. 1931	710.25	48,947.33	676,338.00	7.24%
1932	446.35	61,623.89	1,095,584.00	5.62%

(d) BUILDINGS.

A small wooden dispensary was opened during March at Kemasik for the use of the travelling dresser in that district.

Hospital lighting:—At the beginning of the year, the hospital was supplied with electricity from two sources, the main source being a 32- volt battery and the subsidiary source being a small 110- volt petrol engine. The battery installation broke down and was out of action for the greater part of the year: new parts were purchased but it seems likely that the damage is irreparable. The 110- volt engine proved to be too expensive and as the work it performed was of little importance, the engine was given to another department. When the financial position of the State improves, the lighting of the hospital must receive attention.

II. PUBLIC HEALTH.

The number of prevailing diseases treated compared with the figures for the three previous years are as follows:—

Total number of new cases treated.	1929	1930	1931	1932
Malaria	3,370	5,775	5,408	6,180
Fever unspecified	1,827	2,799	862	574
Diseases of Respiratory System (excluding influenza)	1,431	1,437	1,357	1,767
Influenza	1,425	1,621	1,820	2,070
Yaws	3,390	3,386	2,601	2,686
Beri Beri	1,297	915	1,181	433
Diseases due to intestinal parasites ..	1,802	2,894	3,539	4,940

Mosquito Borne Diseases:—Malaria is not so prevalent as might be expected. The number of deaths from “fever” is grossly over-estimated owing to the frequency with which “deman” is given as the cause of death. Many deaths reported as due to “fever” are not due to Malaria at all. There were no severe outbreaks during 1932 such as had occurred in past years due to the felling and clearing of jungles, as no new properties were opened during the year. It is probable that malaria occurs only where there are hill-streams suitable for the breeding of *A. maculatus*.

A few mosquito-surveys on a small scale were carried out on the coast. *A. maculatus* was found only at Marang and Batu Rakit which are the only two coastal towns where malaria is prevalent. No fresh case of infection with malaria was contracted in Kuala Trengganu town during the year; in fact, it is probable that this town is free from malaria. The spleen rate of the school children in Kuala Trengganu is only 1.1% while for the rest of the coast it is 10.11%. The only school in the interior of the State is at Kuala Brang where the rate was 9.52%, but the number of children present was too small for this figure to be of any significance. In certain kampongs further up the Trengganu River, however, the spleen-rate is over 50%.

Dengue. There was no case of dengue.

Dysentery. It is remarkable that dysentery is not more prevalent than it is in Trengganu considering the extremely unhygienic state of affairs with regard to conservancy and water supplies. It is very fortunate that intestinal diseases are not really prevalent in the vast areas where the water-table is very high and shallow unprotected wells form the water supply. Occasional small outbreaks occur, however, the most important being at Batu Rakit where there were 90 cases and 57 deaths. It was an outbreak of bacillary dysentery and was undoubtedly spread by the swarm of flies which was breeding on the refuse round the houses. The town was by far the dirtiest in Trengganu but this state of affairs has now been rectified to some extent. There is no dresser stationed here. It is interesting to note that Batu Rakit was the only district in Trengganu in which the number of deaths exceeded the number of births in 1932.

Enteric Fever. As in the case of dysentery, it is remarkable that the incidence of enteric fever is so small. Sporadic cases occur and 13 cases were treated.

Influenza. 2070 cases were treated. The usual epidemic appeared at the onset of the North-East Monsoon. Complications were rare except for some cases of broncho-pneumonia in children and infants.

The change of weather at this time along with this epidemic has always a very bad effect on severe cases of pulmonary tuberculosis. In November there were 5 consecutive deaths in the hospital due to pulmonary tuberculosis.

Yaws. There was an ⁱⁿcrease in the number of cases treated. The prevalence of the disease is appreciably less in the larger towns, however, and the early stages of this disease are not encountered so often. The routine treatment given is intramuscular injections of bismuth-sodium-tartrate. A number of Malays fear these injections as they are almost invariably followed by a severe general reaction. The great advantage of this solution is its cheapness but as soon as financial conditions improve, it is proposed to replace this drug by metallic bismuth or neosalvarsan, with stovarsol for the very young children.

Beri-Beri. Most of these cases occur after the North-East Monsoon. There was a large drop in the number of cases treated.

Diseases due to Intestinal Parasites. The number of patients requiring treatment continues to increase. The number of people infected with these parasites is extraordinarily high, over 80% of the specimens of stool examined showing one or more kinds of infection. The laboratory records show that ascaris is about twice as common as ankylostoma.

Smallpox. A mild outbreak of this occurred in the Besut district at the end of March. There were eleven cases with no deaths. A further mild case occurred during August.

Exanthemata. A small epidemic of chickenpox occurred in the Kijal district in March and there were 42 cases. 10 cases of measles and 6 cases of mumps were treated.

A case of polio-encephalitis occurred.

There was no case of plague, cholera or cerebro-spinal meningitis. No case of tropical typhus or Japanese river fever has yet been diagnosed in Trengganu.

(b) VITAL STATISTICS.

(1) General Population. The population in 1921 was 153,765 while it was 179,789 in 1931. The population in 1931 consisted of 92,354 males and 87,435 females, and was made up of:—

Malaysians	164,564
Chinese	13,254
Indians	1,371
Europeans	35
Eurasians	15
Others	550

The population for 1932 estimated by the geometrical method is 182,622 and the percentages for birth and death rates given below are calculated by this method. Calculated by the arithmetical method, the population would be 182,391. By the "Balancing-equation-method" i.e. by adding the excess of immigrants over emigrants and births over deaths to the population for 1931, the population should be 181,753. This last method is applicable to Trengganu where the population undergoes little fluctuation.

The number of immigrants during 1932 was 14,124 while the number of emigrants was 14,060.

Births. During the year there were 6,836 births registered of which 3,601 were males and 3,235 were females. The birth-rate per mille per annum was 37.98 as compared with 36.11 last year.

Table showing Births according to Race.

Malays.	Javanese.	Arab.	Indian.	Chinese.	Japanese.	Others.	Total.
6538	4	1	4	281	8	13	6,836

Deaths. 4809 deaths were registered during the year giving a death rate of 26.33 as compared with 24.06 during the previous year. Of the 4809, 2,817 were males and 2,992 were females.

The main causes of death, as reported, for the last two years have been:—

	1931	1932
Fever	2525	2814
Convulsions	730	787
Beri-Beri	58	76
Bowel Diseases	203	225
Respiratory Diseases	43	48
Puerperal Fever	86	108
Old Age	254	287
Accidents	79	96
Other causes	345	368

It must be pointed out, however, that the figures are far from accurate and in the vast majority of cases the registrars and informants are persons possessed of no medical knowledge. "Fever" and "old age," for example, include a great variety of conditions. In the present state of development of this State, no machinery for the accurate recording of the causes of death is possible. "Convulsions" is merely an end symptom and it would be safe to ascribe to malaria the majority of deaths from this cause.

The following tables show:—

(a) **Deaths according to Age.**

Under 12 months	1—2 years.	2—3 years.	3—12 years.	Adults.	Total.
1,643	569	142	241	2,214	4,809

(b) **Deaths according to Race.**

Malays.	Javanese.	Arab.	Indian.	Chinese.	Japanese.	Others.	Total.
4,328	11	1	29	424	9	7	4,809

Registration of Births and Deaths has been compulsory since July 1927, when the Registration of Births and Deaths Enactment 1344 was passed. It is probable that registration is now fairly reliable. The figures for births and deaths since registration started have been:—

	Births	Deaths
1927 ..	3,940	4,980
1928 ..	4,555	4,847
1929 ..	4,841	4,763
1930 ..	6,189	4,591
1931 ..	6,489	4,323
1932 ..	6,836	4,809

It can be seen that the figures for births before 1930 are manifestly too low. The Registrar of the Malayan Census (1931) considered these figures unreliable and remarked that birth registration was unpopular among Asiatics in Malaya. He also remarked that it might be assumed that the true birth-rate per 1000 Asiatic women of childbearing age remained approximately constant over a long period of years and therefore that in an area so little effected by immigration as Trengganu, the number of births would only show a small increase from year to year corresponding to the natural increase of population. Under-estimation of the number of births obviously accounted for the terrific Infant Mortality Rates of 356.00, 355.45 and 337.53 recorded prior to A.H. 1348 (1929)

INFANT MORTALITY. The number of deaths under one year was 1,643 of which number 959 were boys and 684 were girls. The Infant Mortality Rate was thus 241.83 as compared with 226.38 last year. The rate for Kuala Trengganu was 201.07 while it was 308.41 for the rest of the State.

MATERNAL MORTALITY. 108 mothers died as the result of childbirth giving a mortality per mille births of 15.79. The rate in Kuala Trengganu was only 3.41 while for the rest of the State it was 21.22.

Births and Deaths according to District.

District.	Births.	Deaths.
Kuala Trengganu	2054	824
Besut	686	437
Kemaman	692	480
Paka	497	367
Dungun	613	469
Stiu	379	319
Ulu Trengganu	416	398
Marang & Merchang	498	491
Kemasik & Ketray	536	533
Merang & Batu Rakit	465	491

These figures serve to show that the Batu Rakit District is the unhealthiest in the State; attention has already been drawn to the fact that in 1932 Batu Rakit was the dirtiest town in Trengganu.

EUROPEAN POPULATION. The total number of Europeans in the State at the end of the year was 29. Their health has been good. There was one death during the year due to suicide. There was only one case of serious illness, that of a young Danish girl aged four years who contracted polio-encephalitis at Kretay Plantations. Owing to difficulties of adequate treatment in such an inaccessible spot she was finally sent down to Singapore where she made a good recovery.

EUROPEAN OFFICIALS. The following table shows the sick, invaliding and death rates of European Officials.

Total number of Officials resident	18
Average number resident	10
Total number on sick list	2
Total number of days on sick list	27
Average daily number on sick list	0.07
Percentage of sick to average number resident	20%
Average number of days on sick list for each patient	13.5
Average sick time to each resident	2.7
Total number invalided	Nil
Percentage of invalidings to total residents	Nil
Total deaths	1
Percentage of deaths to total residents	5.55%
Percentage number of deaths to total average number resident	10%
Number of cases of sickness contracted away from residence.	Nil.

Note:—The death was due to suicide.

ASIATIC OFFICIALS. The total number of new cases treated was 4789 of which 1895 were in the Police Force.

III. HYGIENE AND SANITATION.

1. PREVENTIVE MEASURES.

No anti-malaria measures on a large scale are possible. The larger towns, fortunately, are relatively free from malaria. Mosquito surveys on a small scale were carried out at Marang and Batu Rakit and the places where *A. maculatus* was breeding were

oiled. These are the only towns on the coast where malaria is really prevalent. Free distribution of quinine is the only effective measure feasible and this is being carried out to the fullest possible extent. Hospital cases are also being treated with quinine and atebirin. Infectious Diseases are not very prevalent.

Vaccination is compulsory. Four whole-time vaccinators are employed, one for each of the main divisions of the State. During the year 11,702 vaccinations were performed. When the outbreak of smallpox at Besut occurred, prompt measures were taken including confirmation of diagnosis, isolation of the sick, isolation and vaccination of contacts, and the searching out for unvaccinated people in the neighbouring kampongs.

Much assistance was given by the Assistant Adviser, Besut, and the Police. Very few unvaccinated people were found as vaccination in Trengganu is very popular. Judging by the faces of the older people, smallpox must have been extremely prevalent a number of years ago.

A Circular was sent round to the officials of all the districts giving a description of the signs of rabies and anthrax and the correct procedure in dealing with a suspected case. Cases of anthrax and rabies have occurred in the neighbouring state of Kelantan but so far they have not been noted in Trengganu. There is no veterinary officer of any kind in Trengganu.

Ankylostomiasis and other helminthic diseases are very prevalent. Free treatment of cases constitutes the only measure possible at present and this is being carried out extensively by all the Dispensaries.

2. GENERAL MEASURES OF SANITATION.

Sanitation is not highly organized in Trengganu and conditions became worse during the year. An experienced Sanitary Inspector had to be dismissed from Kuala Trengganu for reasons other than economy and an inexperienced young Malay was put in his place. Owing to the retrenchment of a third clerk from the office, part of his duties consist in keeping the Births and Deaths Registers. It is proposed to send him to Singapore for training. The Sanitary Inspector in Kemaman was dismissed for reasons of economy and his duties were undertaken by the Assistant State Commissioner of South Trengganu. There is thus only one Sanitary Inspector in Trengganu.

In the larger towns, sanitation is organized by the Town Boards. The State Engineer and the Chief Medical Officer are members of the Town Board at Kuala Trengganu. District Officers supervise sanitation and they are expected to co-operate with the Dressers of the Medical Department if there is a dispensary in their district. The work undertaken consists mainly of refuse disposal and of cleaning streets, drains and markets. There is very little disposal of sewage. In Kuala Trengganu there is a "pail" system of disposal which is done through a contractor but only about 200 pails or so are collected although the population is nearly 14,000. The hospital and some private houses have a trenching-system of their own. In the vast majority of cases there is no system of collection, the foreshore or river, a clump of vegetation, a latrine built over an earth-drain or the space under the house being utilized.

The water supplies are derived either from wells or from a river where one is available. Comment has already been made on the remarkable fact that intestinal diseases are not far more prevalent.

3. SCHOOL HYGIENE.

In 1931, School Inspections were started in the Kuala Trengganu area by the Health Sister but they had to be abandoned when that post was soon afterwards retrenched.

In 1932, a system of School Inspections was carried out and all the Government Schools in the State, twenty-two in number, were examined at least once by the senior dressers.

Reports were sent in with regard to the structure of school buildings, ventilation, light and general sanitation. The provision for sanitary conveniences is very poor and most schools also have a very poor water supply. Provision for light, ventilation and floor-space were, in general, satisfactory but gross overcrowding existed in the Paya Bunga School at Kuala Trengganu.

All the children were medically examined and given the opportunity later of treatment if any disease existed. A total of 1820 pupils were examined, the percentage number present at the time of inspection being 79.9%. Of these twenty-two schools, eight were in the Kuala Trengganu district and 84.4% of the pupils were present (890 out of 1055).

The splenic index for the whole state was 5.71%, the rate outside Kuala Trengganu being 10.11% while that in Trengganu was 1.12%. Carious teeth were very common, particularly in Kuala Trengganu where more than half the children were thus affected. More than half the children showed signs of suffering from worm infections. Signs of yaws were noted in 23.2% of cases, but these were mainly healed scars. Scabies was very common and tinea was frequently noted.

4. LABOUR CONDITIONS.

There is only one large rubber and coconut estate in Trengganu. There are also four tin mines and two iron mines which employ labour on a considerable scale. The total number employed at the end of the year was 1525 as against 2450 in 1931. These concerns are periodically inspected by the Chief Medical Officer. Health returns are received every month from the employers and the health of the coolies has been satisfactory. The estate and the two iron mines have hospitals while there is a Japanese doctor at each of the iron mines. The two biggest tin mines share a dispensary and a Grade II dresser.

5. HOUSING AND TOWN PLANNING.

Buildings. The Town Board Regulations of 1342 are at present being revised. Within a Town Board area a site plan has to be furnished and the building plan has to be passed by the Town Board Committee whose members include the State Engineer and the Chief Medical Officer. Outside the town areas there are no building regulations.

There are no building societies. Building in towns and villages is at present restricted by slump conditions:

There are very few cooly lines in the State as local labour is generally employed. There are a few P.W.D. lines and there are lines on the larger mines and estates.

There are practically no Government quarters with the exception of those occupied by European Officials.

With the exception of the main streets in the larger towns, the common type of house is raised 6-8 feet on wooden posts. The floors are of wood or split bamboo, the walls are generally of split bamboo and the roofs of palm leaf. The houses frequently lie close together with no provision for roads and lanes. There are generally no drains or latrines. Holes in the floor often serve for waste water, refuse and the needs of nature. Overcrowding is not the rule, probably on account of the small proportion of Chinese in the population; the 1931 census showed that Trengganu shared with Kedah the distinction of having the lowest house density (4.3) of any State or Colony in Malaya and that Kuala Trengganu has the second lowest house density (4.7) in towns of over 10,000 inhabitants.

In the State of Trengganu, the town with the highest house density is Paka (5.9).

5. PROPAGANDA IN THE PREVENTION OF DISEASE.

Little work of this nature has been done in Trengganu apart from periodical visits by dressers. An effort has been made to introduce the teaching of elementary hygiene into schools. A few posters on malaria, ankylostomiasis, etc. have been circulated.

6. DRUGGISTS AND DENTISTS.

Compulsory registration of druggists and dentists was introduced during the year and periodical inspections of their premises were made.

IV. PORT HEALTH WORK.

No activity of this branch of Preventive Work was called for during the year.

V. MATERNITY AND CHILD WELFARE.

The only place where special provision is made for this work is in Kuala Trengganu. The following figures are of interest in this connection:—

	Kuala Trengganu.	Rest of State.	Whole State.
Births	2054	4782	6836
Deaths under one year	824	1229	1643
Infant mortality rate per mille	201.07	308.41	241.83
Maternal deaths	7	101	108
Maternal death rate per mille	3.41	21.22	15.79

It can be seen that there is need for work of this kind outside Kuala Trengganu. Provision has been made in the 1933 estimates for a midwife in Kemaman.

In Kuala Trengganu there is a Women and Children's Welfare Clinic attached to which is a Maternity Nurse; this clinic is a very popular institution. There is also a midwife attached to the hospital.

35 confinements were conducted in hospital by the midwife as against 26 in the previous year. 117 labours were conducted outside by the midwife attached to the Women and Children's Welfare Clinic as against 130 in the previous year; in addition she attended to 13 cases of miscarriage and paid altogether 1383 outside visits. The women are encouraged to come for antenatal treatment and 42 women came. There were no deaths. The two Government midwives are the only certificated midwives in the State.

3065 new cases were treated by the Women and Children's Clinic as compared with 2414 cases in 1931 and 2599 in 1930. The total number of attendances was 10,466.

The new cases were as follows:—

	1932	1931
Antenatal visits	42	86
District Labours and Miscarriages (Malays 65, Chinese 65) ..	130	130
Adult Women—General Diseases	1154	970
Infants, under one year	105	74
Children 1—12	1340	888
Vaccinations performed on children (not included in above) ..	294	246
Total Adults	1326	1186
Total Children	1739	1228
Total new cases	3065	2414

The number of new cases by race was as follows:—

	1932.		
	Children	Women	Total
Chinese ..	887	716	1603
Malays ..	883	599	1432
Indians ..	12	7	19
Others ..	7	4	11
TOTAL ..	1739	1326	3065

VI. HOSPITALS AND DISPENSARIES.

1. HOSPITAL.

There is only one Hospital in Trengganu, which has nine wards with a total accommodation for 156 patients. One of the wards is for "general female" use and one is a maternity ward complete with labour room and two 2nd Class single rooms. Of the remaining wards, one is reserved for lepers and one for cases of tuberculosis. Provision is needed for 1st Class wards in this hospital and for small hospitals at Kemaman and Besut which could adjoin the dispensaries there. The following is a summary of the work performed at the hospital during the last 3 years:—

	1930	1931	1932.
Total number of admissions	1990	1949	1640
Number of Malays admitted	795	790	806
Number of females admitted	199	200	249
Number of deaths in hospital	96	77	63
Number of deaths per 100 admissions	4.82	3.95	3.84
Number of labours in maternity ward	42	26	35
Number of major operations performed	23	21	24
Number of minor operations performed (including dental extractions)	146	130	135
Number of deaths from or immediately after major operations	Nil	Nil	Nil
Highest number of patients in hospital (on 23rd April, 1932) .. .. .	..	..	151
Lowest number of patients in hospital (on 7th February, 1932) .. .. .	..	..	93
	cts.	cts.	cts.
Average daily cost of diet per patient	19.82	18.99	16.74

The drop in the number of admissions is due to the opening of a private hospital at Dungun in November 1931 by the Nippon Mining Co. and to the improved sanitation on this mine.

More Malays were admitted this year.

The number of females admitted showed an increase of nearly 25% over the number in 1931. The female ward is very popular and is nearly always full of Malay women and children. A great deal of its popularity is due to the Japanese midwife who also performs the duties of nurse in this ward.

The number of labours conducted in the hospital has again shown a rise after a fall in 1931 due to the retrenchment of the European Health Sister.

With regard to operation work, local and spinal anaesthesia by means of novocaine is employed in all cases where possible.

The following work was performed at the Hospital Laboratory, where there are also examined specimens sent from the Town Dispensary and other sources.

Blood. Microscopical examinations 1473 (24 positive for malaria including B.T. 11, Q.M. 10, S.T. Rings 14 and S.T. crescents 4). Last year there were 220 slides positive for malaria out of 1713 slides examined).

Total differential counts 24.

Sputum. Microscopical examinations 169 (30 T.B. positive).

Urethral, prostatic and cervical pus for gonococci:—27 (11 positive).

Nasal and other smears for *Bacillus leprae*:—9 (2 positive).

Urine (routine examinations are done in the wards):—Microscopical and chemical tests 243.

Faeces:—For T.B. 4 (nil positive).

For ova and parasites 1718. Multiple infections were frequent and there were only 373 negative specimens.

995 positive *Ascaris*.

994 positive *Tricocephalus dispar*.

554 positive *Ankylostoma*.

18 positive *Distoma* (including 2 *Clonorchis Sinensis*)

14 positive *Entamoeba histolytica*.

11 positive *Enterobius vermicularis*.

9 positive *Entamoeba coli*.

2 positive *Dipylidium caninum*.

1 positive *Trichostrongylis instabilis*.

1 positive *Balantidium coli*.

Other pathological material examined included spinal fluid, conjunctival smears, lymph gland punctures for *B. pestis*, etc.

2. DISPENSARIES.

There is a permanent Government Dispensary under the charge of an experienced dresser at each of the following centres—Kuala Trengganu, Kemaman, Besut, Dungun and Kuala Brang; the hospital at Kuala Trengganu has also an out-door Dispensary. In addition, there are two Travelling Dressers who are stationed at Stiu and Kemasik where small, wooden temporary dispensaries have been built; most of their work consists in travelling about their districts and a special travelling allowance is made to them for this purpose. In addition, a dresser is sent out once a week from the Hospital and he visits such places as Marang, Chendering, Manir, and Batu Rakit.

Last year, in addition to their other duties, the vaccinators were given medicine-chests to take with them on their itineraries among the outlying kampongs and they treated 6,862 people in this way.

All Rural Police Stations, in places where there are no dispensaries, keep a small stock of simple medicines such as quinine, antiseptic ointments and lotions, vermifuges, etc. 915 people were thus treated.

The following table gives the total number of new cases and attendances for the last six years:—

	1927	1928	1929	1930	1931	1932
New Cases	20,147	37,349	45,407	57,926	number not obtainable	64,318
Total Attendances ..	28,417	54,430	70,080	78,164	70,132	87,585

The following table shows the work done by the dispensaries, etc:—

STATION.	New Cases	Total Attendances
Kuala Trengganu Town	11,647	19,144
Kemaman	11,579	15,396
Besut	6,918	8,498
Dungun	3,465	4,939
Kuala Brang	6,310	11,699
Kuala Trengganu Hospital Out-patients Dept.	3,437	4,186
Travelling Dresser from Hospital	2,010	2,010
Temporary Dispensary Kemasik	3,573	4,862
Temporary Dispensary Stiu	7,602	9,074
Vaccinators	6,862	6,862
Police	915	915
Total	64,318	87,585

There was a great increase this year in the work at the Kuala Trengganu Town, Kuala Brang, Stiu and Kemasik Dispensaries.

Dispensaries are required at Marang and Batu Rakit which are two of the most unhealthy towns on the coast.

The vaccinators who are attached to the Dispensaries performed 11,702 Vaccinations as against 9,485 in the previous year.

VII. PRISONS AND ASYLUMS.

1. PRISONS.

The Kuala Trengganu prison is antiquated and unsatisfactory. The health of the prisoners, however, was quite good as they have a lot of work to perform outside the prison. There is no hospital accommodation for the female prisoners who, however, are very few in number. There were 23 admissions to the hospital and one death occurred due to dysentery; in 1931 there were 86 admissions with 1 death. 426 prisoners were treated as out-patients as against 353 in 1931.

The number of policemen treated was 1805 as compared with 1899 in 1931.

2. ASYLUMS.

There is no separate asylum in Trengganu and during the present financial stringency there is no prospect of improving this deplorable condition either by building asylums in the State or by sending the patients elsewhere.

Lunatics—Mentally deranged patients are confined in cells within the prison compound. A total of 50 cases including 7 females were treated as against 39 cases including 5 females in 1931. A number of them were under observation only and there were cases of mental defect not amounting to insanity.

The following figures refer to 1932:—

		Males	Females	Total
Remained at end of 1931	..	17	2	19
Admitted during the year	..	26	5	31
Total treated	.. ..	43	7	50
Discharged or transferred	..	25	5	30
Died .. .. .	..	2	0	2
Remaining at end of year	..	16	2	18

Lepers—There is no leper asylum in Trengganu but there is a small ward of eight beds in the hospital for male lepers which is always full. A register is being kept of all lepers that come to the notice of the Department pending future legislation for the control of this disease.

VIII. METEOROLOGY.

Readings recorded by instruments installed at the Kuala Trengganu Hospital showed that:—

The highest temperature was 93.00 F on 23rd August.

The lowest temperature was 69.00 F on 7th March.

The month with the highest rainfall was November (28.28 inches.)

The highest rainfall in 24 hours was 5.33 inches on 31st December.

The total rainfall for the year was 90.13 inches as compared with 130.98 ins. in 1931.

G. I. H. BRAINE, M.B., Ch.B., D.T.M. & H.

Ag. CHIEF MEDICAL OFFICER,

TRENGGANU.



APPENDIX A.

HOSPITAL OR INSTITUTION KUALA TRENGGANU.

Return of Diseases and Deaths (In-Patients) for the year 1932.

DISEASES.	Remaining in Hospital at end of 1931.	Yearly Total.		Total Cases Treated.	Remaining in Hospital at end of 1932.
		Admissions.	Deaths.		
I.—Epidemic, Endemic and Infectious Diseases.					
1. Enteric Group:—					
(a) Typhoid Fever	1	8	1	9	..
(b) Paratyphoid A. .. ..	..	..	..	..	..
(c) Paratyphoid B.	1	1	..	1	..
2. Malaria:—					
(a) Tertian .. ..	..	4	..	4	..
(b) Quartan .. ..	..	5	..	5	..
(c) Aestivo-autumnal .. ..	..	7	2	7	..
(d) Cachexia	4	95	..	99	2
(e) Blackwater .. ..	..	1	..	1	..
3. Measles .. ..	..	..	..	..	..
4. Influenza	3	67	..	70	1
5. Dysentery:—					
(a) Amoebic .. ..	..	16	1	16	..
(b) Bacillary	2	31	3	33	..
6. Diphtheria .. ..	..	1	..	1	..
7. Leprosy	5	13	1	18	9
8. Erysipelas .. ..	..	1	..	1	..
9. Other Epidemic Diseases:—					
(a) Varicella (Chicken Pox) ..	..	2	..	2	..
(b) Yaws	37	388	..	425	25
10. Tuberculosis, Pulmonary and Laryngeal	10	40	18	50	10
11. Tuberculosis of Bones and Joints	..	1	..	1	..
12. Syphilis:—					
(a) Primary .. ..	..	3	..	3	1
(b) Secondary .. ..	..	1	..	1	..
(c) Tertiary	3	35	..	38	1
13. Soft Chancre .. ..	..	3	..	3	..
14. A. Gonorrhoea & its complications	1	54	..	55	4
B. Gonorrhoeal Ophthalmia ..	..	2	..	2	..
C. Gonorrhoeal Epididymitis ..	..	4	..	4	..
D. Gonorrhoeal Arthritis .. ..	..	4	..	4	..
15. Bubo .. ..	..	7	..	7	..
II.—General Diseases not mentioned above.					
16. Cancer of Maxilla .. ..	..	1	..	1	..
17. Cancer of Breast .. ..	..	1	..	1	..
Carried over ..	67	796	26	862	53

APPENDIX A.—(Continued).

DISEASES.	Remaining in Hospital at end of 1931.	Yearly Total.		Total Cases Treated.	Remaining in Hospital at end of 1932.
		Admissions.	Deaths.		
<i>Brought forward</i> ..	67	796	26	862	53
18. Lymphosarcoma neck .. ..	..	1	..	1	..
19. Septicaemia	6	6	5	6	..
20. Actinomycosis .. ..	..	1	..	1	..
21. Cancrum oris .. ..	..	1	..	1	..
22. Tumours non malignant ..	..	6	1	6	..
23. Acute Rheumatism	2	34	..	36	..
24. Chronic Rheumatism	1	1	..	2	..
25. Beri Beri	10	61	6	71	1
26. Anaemia:—					
(a) Debility .. ..	..	10	..	10	..
27. Alcoholism .. ..	..	3	..	3	..
28. Apoplexy:—					
(a) Concussion of Brain ..	..	2	..	2	..
29. Encephalitis .. ..	..	4	..	4	..
III.—Affections of the Nervous System and Organs of Senses.					
30. Paralysis:—					
(a) Hemiplegia	3	3	..	6	..
31. Other forms of mental alienation	..	11	..	11	..
32. Epilepsy .. ..	..	1	..	1	..
A. Hysteria .. ..	..	2	..	2	..
B. Neuritis .. ..	..	4	..	4	..
C. Neurasthenia .. ..	..	2	..	2	..
33. Affections of the Organs of Vision					
(a) Conjunctivitis	1	21	..	22	..
(b) Other affections of the Eye	..	2	..	2	..
(c) Iritis .. ..	..	1	..	1	..
34. Affections of the Ear or Mastoid Sinus .. ..	..	..	..	..	..
(a) Otitis Media .. ..	..	9	..	9	1
(b) Mastoiditis .. ..	..	1	..	1	..
IV.—Affections of the Circulatory .. System.					
34. Other Diseases of the Heart:—					
(a) Vulvular	1	7	4	8	..
35. Diseases of the Veins:—					
Haemorrhoids .. ..	..	3	..	3	..
Phlebitis .. ..	..	2	..	2	1
<i>Carried over</i> ..	91	995	42	1,079	56

APPENDIX A.—(Continued).

DISEASES.	Remaining in Hospital at end of 1931.	Yearly Total.		Total Cases Treated.	Remaining in Hospital at end of 1932.
		Admissions.	Deaths.		
<i>Brought forward</i> ..	91	995	42	1,079	56
36. Diseases of the Lymphatic System .. ..	..	..	..	..	..
Lymphangitis .. ..	..	3	..	3	..
Tachycardia .. ..	..	1	..	1	..
V.—Affections of the Respiratory System.					
37. Bronchitis:—					
(a) Acute	1	28	..	29	..
(b) Chronic .. ..	..	..	..	..	..
38. Pneumonia:—					
(a) Lobar .. ..	..	16	6	16	..
(b) Broncho .. ..	..	4	2	4	..
39. Pleurisy .. ..	..	2	..	2	1
40. Empyema	1	1	..	2	..
41. Asthma	2	10	..	12	1
VI.—Diseases of the Digestive System.					
42. Diseases of Teeth or Gums—					
Caries .. ..	..	2	..	2	..
43. Pyorrhoea	1	1	..	2	..
44. Alveolar Abscess .. ..	..	3	..	3	..
45. Affections of the Pharynx or Tonsils .. ..	..	2	..	2	..
46. Pharyngitis .. ..	..	1	..	1	..
47. Other affections of the Stomach ..	..	3	..	3	..
48. Gastritis .. ..	..	3	..	3	..
49. Dyspepsia	2	20	..	22	1
50. Diarrhoea and Enteritis (2 years and over) .. ..	..	10	..	10	1
51. Diarrhoea and Enteritis (under 2 years) .. ..	..	3	1	3	..
52. Ankylostomiasis .. ..	..	44	..	44	..
53. Diseases due to Intestinal Parasites:—					
Ascaris	1	32	..	33	..
54. Appendicitis	1	3	..	4	1
55. Hernia	1	9	..	10	..
56. Hernia Strangulated .. ..	..	1	..	1	..
57. Affections of the Anus .. ..	..	..	..	..	..
<i>Carried over</i> ..	101	1,197	51	1,291	61

APPENDIX A.—(Continued).

DISEASES.	Remaining in Hospital at end of 1931.	Yearly Total.		Total Cases Treated.	Remaining in Hospital at end of 1932.
		Admissions.	Deaths.		
<i>Brought forward</i> ..	101	1,197	51	1,291	61
58. Other affections of Intestine Constipation .. ..	..	3	..	3	..
59. Other affections of Liver Hepatitis .. ..	..	7	..	7	..
Jaundice .. ..	..	4	..	4	..
60. Peritonitis of unknown cause ..	..	1	1	1	..
61. Diabetes mellitus .. ..	..	1	..	1	..
VII.—Diseases of the Genito-urinary System.					
(Non-Venereal)					
62. Acute Nephritis .. ..	..	6	3	6	2
63. Chronic Nephritis	1	9	..	10	2
64. Hydrocele .. ..	..	2	..	2	1
65. Diseases of the Urethra:—					
(a) Rupture of Urethra ..	..	5	..	5	..
66. Cysts or other Non-malignant tumours of the Ovaries ..	1	2	..	3	..
A. Cystitis .. ..	..	1	..	1	..
B. Other affections of the fe- male genital organs ..	..	..	..	..	..
Displacement of Uterus ..	..	1	..	1	..
Dysmenorrhoea .. ..	..	4	..	4	..
Vesico-Vaginal Fistula ..	1	1	..	2	..
VIII.—Puerperal State.					
67. A. Normal labour .. ..	..	31	..	31	2
68. B. Accidents of Pregnancy ..	..	..	..	..	..
(a) Abortion	1	3	..	4	..
(b) Other accidents of preg- nancy .. ..	..	1	..	1	..
(c) Abnormal labour .. ..	..	1	..	1	..
(d) Ante-Natal .. ..	..	4	..	4	..
IX.—Affections of the Skin and Cellular Tissues.					
69. Boils .. ..	..	5	..	5	..
70. Abscess	1	30	..	31	3
71. Cellulitis .. ..	..	3	..	3	..
72. Ulcers	13	152	..	165	10
73. A. Tinea .. ..	..	7	..	7	..
B. Scabies .. ..	..	2	..	2	..
C. Dermatitis	1	2	..	3	..
74. Other diseases of the Skin ..	..	..	..	..	..
Eczema .. ..	..	6	..	6	..
Herpes .. ..	..	1	..	1	..
<i>Carried over</i> ..	120	1,492	55	1,605	81

APPENDIX A.—(Continued).

DISEASES.	Remaining in Hospital at end of 1931.	Yearly Total.		Total Cases Treated.	Remaining in Hospital at end of 1932.
		Admissions.	Deaths.		
<i>Brought forward</i> ..	120	1,492	55	1,605	81
X.—Diseases of the Bones and Organs of Locomotion.					
(Other than tuberculosis)					
XI.—Diseases of Infancy.					
75. Marasmus .. ..	..	1	1	1	..
76. Congenital Syphilis .. ..	..	2	..	2	..
77. Infantile Convulsions .. ..	..	2	2	2	..
XIII.—Affections of Old Age.					
78. Senility	1	1	1	2	..
XIV.—Affections produced by External causes.					
79. Snake Bite .. ..	..	1	..	1	..
80. Opium Poisoning .. ..	..	1	1	1	..
81. Opium Habit .. ..	..	29	..	29	..
82. Inanition .. ..	..	2	2	2	..
83. Burns by Fire .. ..	..	2	..	2	..
84. Wounds by Cutting or Stabbing Instruments	1	84	1	85	6
85. Contusion .. ..	..	16	..	16	..
86. Wounds by fall .. ..	..	4	..	4	..
87. Injuries inflicted by Animal bites and kicks .. ..	..	6	1	6	1
88. Sunstroke .. ..	..	1	..	1	..
89. Sprain .. ..	..	10	..	10	..
90. Strain .. ..	..	3	..	3	..
91. Fracture	1	7	..	8	1
XV.—Ill-Defined Diseases.					
92. A. Diseases not already speci- fied or ill-defined. Ascites ..	1	1	..	2	..
93. N.B. General .. ..	..	..	..	..	..
Observation .. ..	..	1	..	1	..
TOTAL ..	124	1,666	64	1,783	89

N.B.—Of the above figures 23 admissions and 1 death occurred at the Prison Hospital, Kuala Trengganu.

APPENDIX B.

Return of Diseases (Out-Patients) for the year 1932.

DISEASES.						MALE.	FEMALE.
I.—Epidemic, Endemic and Infectious Diseases.							
1. Enteric Group:—							
(a)	Typhoid Fever	..	..	..	..	1	2
(b)	Paratyphoid A.	..	..	..	..	..	..
(c)	Paratyphoid B.	..	..	..	..	..	..
(d)	Type not defined	..	..	..	..	..	..
2. Malaria:—							
(a)	Tertian	..	..	..	..	77	24
(b)	Quartan	..	..	..	..	3	..
(c)	Aestivo-autumnal	..	..	..	..	57	15
(d)	Cachexia	..	..	..	..	4,362	1,526
(e)	Blackwater	..	..	..	..	..	..
(f)	Fever unspecified	..	..	..	..	428	146
3.	Measles	..	..	..	..	9	1
4.	Erysipelas	..	..	..	..	1	..
5.	Whooping Cough	..	..	..	..	1	..
6.	Influenza	..	..	..	..	1,629	371
7.	Mumps	..	..	..	..	5	1
8. Dysentery:—							
(a)	Amoebic	..	..	..	..	43	2
(b)	Bacillary	..	..	..	..	13	5
(c)	Undefined	..	..	..	..	250	103
9.	Leprosy	..	..	..	..	10	3
10. Other Epidemic Diseases:—							
(a)	Varicella (Chicken-pox)	..	..	..	..	36	18
(b)	Dengue	..	..	..	..	..	..
(c)	Yaws	..	..	..	..	1,674	587
(d)	Small-pox	..	..	..	..	9	11
11.	Tetanus	..	..	..	..	..	..
12.	Tuberculosis, Pulmonary and Laryngeal	..	..	..	..	55	4
13.	Tuberculosis disseminated	..	..	..	..	..	..
14. Syphilis:—							
(a)	Primary	..	..	..	..	44	1
(b)	Secondary	..	..	..	..	30	4
(c)	Tertiary	..	..	..	..	66	12
15.	Soft Chancre	..	..	..	..	14	0
16.	Gonorrhoea and its complications	..	..	..	..	372	39
	B. Gonorrhoeal Ophthalmia	..	..	..	..	3	1
	C. Gonorrhoeal Arthritis..	..	..	..	..	54	6
Carried over						9,246	2,882

APPENDIX B.—(Continued).

DISEASES.	MALE.	FEMALE.
<i>Brought forward</i> ..	9,246	2,882
II.—General Diseases not mentioned above.		
17. Cancer or other Malignant Tumours of Organs not specified	3	0
18. Tumours non-Malignant	13	2
19. Acute Rheumatism	1,348	462
20. Chronic Rheumatism	886	321
21. Beri-Beri	263	99
22. Diabetes (not including Insipidus)	17	5
23. Anaemia:—		
(a) Pernicious .. .. .	..	..
(b) Other Anaemias and Chlorosis	656	320
24. Diseases of the Thyroid Gland:—		
Other diseases of the Thyroid Gland, Myxoedema ..	..	..
25. Alcoholism	20	..
26. Other General Diseases:—		
Septicaemia	1	1
Gout	1	..
III.—Affections of the Nervous System and Organs of the Senses.		
27. Meningitis (not including Tuberculous Meningitis or Cerebrospinal Meningitis) .. .. .	..	..
28. Paralysis:—		
Hemiplegia	7	2
29. Epilepsy	1	..
30. Locomotor ataxia	1	..
31. Eclampsia, Convulsions (non-puerperal)		
5 years and over .. .. .	..	1
32. Infantile Convulsions	10	3
33. Hysteria .. .. .	..	7
34. Neuritis	950	254
35. Neurasthenia	13	1
36. Other affections of the Nervous System, such as Paralysis agitans	1	..
37. Insomnia	9	12
38. Other forms of Mental Alienation	2	2
<i>Carried over</i> ..	13,448	4,374

APPENDIX B.—(Continued).

DISEASES.						MALE.	FEMALE.
<i>Brought forward</i> ..						13,448	4,374
39. Affections of the Organs of Vision:—							
(a)	Conjunctivitis	..	..	..	..	783	279
(b)	Tumours of the Eye	..	..	..	..	3	..
(c)	Iritis	..	..	..	..	7	2
(d)	Other affections of the Eye	..	..	..	..	72	10
40. Affections of the Ear or Mastoid Sinus, Otitis media.						228	55
IV.—Affections of the Circulatory System.							
41. Other Diseases of the Heart:—							
(a)	Valvular	..	..	..	..	69	28
	Mitral	..	..	..	..	..	..
	Aortic	..	..	..	..	..	..
(b)	Myocarditis	..	..	..	..	..	..
42. Diseases of the Arteries:—							..
(a)	Arterio-Sclerosis	..	..	..	..	..	..
(b)	Other diseases	..	..	..	..	..	..
43. Diseases of the Veins:—							
	Haemorrhoids	..	..	..	..	57	7
	Varicose Veins	..	..	..	..	..	..
	Phlebitis	..	..	..	..	..	..
44. Diseases of the Lymphatic System:—							
	Lymphangitis	..	..	..	..	..	..
	Lymphadenitis, Bubo (Non-specified)	..	..	..	..	16	1
45. Haemorrhage from undetermined cause ..						2	..
V.—Affections of the Respiratory System.							
46. Diseases of the Nasal Passages:—							
	Rhinitis	..	..	..	..	115	4
	Coryza	..	..	..	..	5	3
47. Affections of the Larynx:—							
	Laryngitis	..	..	..	..	16	8
48. Bronchitis							
(a)	Acute	..	..	..	..	1,021	272
(b)	Chronic	..	..	..	..	161	56
49. Broncho-Pneumonia						19	2
50. Lobar Pneumonia						4	1
51. Pleurisy, Empyema						3	1
52. Asthma ..						209	55
<i>Carried over</i> ..						16,238	5,158

APPENDIX B.—(Continued).

DISEASES.						MALE.	FEMALE.
<i>Brought forward</i> ..						16,238	5,158
VI.—Affections of the Digestive System.							
53.	Diseases of Teeth or Gums:—						
	Caries, Pyorrhoea etc.	..	..	..	..	753	181
	B. Other affections of the Mouth:—						
	Stomatitis	..	..	..	..	179	70
54.	Affections of the Pharynx or Tonsils:—						
	Tonsilitis	..	..	..	..	27	2
	Pharyngitis	..	..	..	..	50	13
	Foreign body in the throat	..	..	..	..	..	..
55.	Other affections of the Stomach:—						
	Gastritis	..	..	..	..	44	9
	Dyspepsia etc.	..	..	..	..	1,368	485
56.	Diarrhoea and Enteritis:—						
	Under 2 years	..	..	..	..	9	3
57.	Diarrhoea and Enteritis ..					..	..
	2 years and over	..	..	..	..	364	77
	Colitis	..	..	..	..	..	..
	Ulceration	..	..	..	..	1	1
58.	Ankylostomiasis ..					933	276
59.	Diseases due to Intestinal Parasites:—						
	Ascaris	..	..	..	..	2,211	1,272
	Trichocephalus dispar	..	..	..	..	10	..
	Unclassified	..	..	..	..	114	47
60.	Appendicitis ..					2	..
61.	Hernia ..					48	..
62.	A. Affections of the Anus, Fistula & etc. ..					6	1
	B. Other affections of the Intestines, Constipation ..					5,533	2,091
63.	Cirrhosis of the Liver:—						
	Alcoholic	..	..	..	..	1	..
	Other forms	..	..	..	..	..	..
64.	Other affections of the Liver:—						
	Jaundice	..	..	..	..	16	1
	Liver Abscess	..	..	..	..	1	..
VII.—Diseases of the Genito-Urinary System (Non-venereal)							
65.	Acute Nephritis ..					35	11
66.	Chronic Nephritis ..					15	3
<i>Carried over</i> ..						27,958	9,702

APPENDIX B.—(Continued).

DISEASES.						MALE.	FEMALE.
<i>Brought forward</i> ..						27,958	9,702
67.	Urinary Calculus	..	..	..	..	1	..
68.	Diseases of the Bladder:—						
	Cystitis	..	..	..	..	40	11
	Bacilluria	..	..	..	..	..	1
69.	Diseases of the Urethra:—						
	(a) Stricture	..	..	..	..	5	..
	(b) Other	..	..	..	..	2	..
70.	Disease (Non-Venereal of the Genital Organs of Man:—						
	Epididymitis	..	..	..	..	19	..
	Orchitis	..	..	..	..	26	..
	Hydrocele	..	..	..	..	..	..
71.	Uterine Haemorrhage (Non-Puerperal)					..	..
	A. Metritis	..	..	..	..	..	1
	B. Other affections of the Female Genital Organs					..	..
	Displacement of Uterus	..	..	..	..	..	1
	Amenorrhoea	..	..	..	..	..	38
	Dysmenorrhoea	..	..	..	..	..	184
	Leucorrhoea	..	..	..	..	..	1
	Vaginitis	..	..	..	..	..	1
VIII.—Puerperal State.							
72.	A. Normal Labour	..	..	..	..	..	227
	B. Accidents of Pregnancy					..	..
	(a) Abortion	..	..	..	..	..	15
	(b) Other accidents of Pregnancy	..	..	..	..	..	31
	(c) Ante-natal examinations	..	..	..	..	..	3
73.	Puerperal Haemorrhage	..	..	..	..	..	..
74.	Puerperal Septicaemia	..	..	..	..	..	5
75.	Sequelae of labour	..	..	..	..	..	..
76.	Puerperal affections of the Breast, Post-Puerperal Debility					..	87
IX.—Affections of the Skin Cellular Tissues.							
77.	Gangrene	..	..	..	..	1	..
78.	Boil	..	..	..	..	221	30
	Carbuncle	..	..	..	..	10	2
<i>Carried over</i> ..						28,283	10,340

APPENDIX B.—(Continued).

DISEASES.						MALE.	FEMALE.
<i>Brought forward</i> ..						28,283	10,340
79.	Abscess	..	..	..	..	160	39
	Whitlow	..	..	..	..	58	7
	Cellulitis	..	..	..	..	58	10
80.	A. Tinea	..	..	..	..	3,513	1,466
	B. Scabies	..	..	..	..	3,334	1,254
81.	Other Diseases of Skin:—						
	Erythema	..	..	..	..	19	6
	Urticaria	..	..	..	..	9	1
	Eczema	..	..	..	..	240	101
	Herpes	..	..	..	..	20	1
	Dermatitis	..	..	..	..	16	8
	Elephantiasis	..	..	..	..	14	..
	Ulcers	..	..	..	..	7,802	2,211
	Prickly Heat	..	..	..	..	75	18
	Corns	..	..	..	..	10	1
	Impetigo	..	..	..	..	217	78
	Seborrhoea	..	..	..	..	1	..
X.—Diseases of Bones and Organs of Locomotions (other than tuberculous).							
82.	Diseases of Joints:—						
	Arthritis	..	..	..	..	51	10
	Synovitis	..	..	..	..	46	11
XI.—Malformations.							
XII.—Diseases of Infancy.							
83.	Congenital Debility	..	..	..	..	1	2
84.	Congenital Syphilis	..	..	..	..	4	1
85.	Other affections of Infancy	..	..	..	..	2	2
86.	Infant Neglect (Infants of 3 months or over)					..	..
XIII.—Affections of Old Age.							
87.	Senility	..	..	..	..	20	11
XIV.—Affections produced by External Causes.							
88.	Food Poisoning :—						
<i>Carried over</i> ..						43,953	15,580

APPENDIX B.—(Continued).

DISEASES.						MALE.	FEMALE.
<i>Brought forward</i> ..						43,953	15,580
89.	Attacks of poisonous animals:—						
	Snake bite	..	..	..	..	5	1
	Insect bite	..	..	..	..	49	12
90.	Accidental drowning					1	1
91.	Other Accidental Poisonings .. .. .					..	..
92.	Burns by fire	..	..	..	..	61	33
93.	Burns other than by fire	..	..	..	..	26	8
94.	Wounds (by cutting or stabbing instruments) ..					2,589	529
95.	Wounds (by fall)					706	117
96.	Wounds (crushing, <i>e.g.</i> railway accidents, etc.) ..					14	..
97.	Injuries inflicted by Animal-Bites, Kicks, etc. ..					42	7
98.	A. Over-fatigue	..	..	..	..	7	..
	B. Hunger or thirst.						
99.	Exposure to Heat:—						
	Sun Stroke	..	..	..	..	4	2
	Heatstroke	..	..	..	..	3	..
	Opium habit	..	..	..	..	12	..
100.	A. Dislocation	..	..	..	..	6	1
	B. Sprain	..	..	..	..	391	72
	C. Fracture	..	..	..	..	12	3
	Foreign Bodies in Nose, Ear and Eye					23	3
XV.—Ill-Defined Diseases.							
101.	A. Diseases not already specified or ill-defined ..					..	..
	Ascites	..	..	..	..	..	2
	Oedema	..	..	..	..	10	3
	Shock	..	..	..	..	1	1
	Goitre	..	..	..	..	1	..
	B. Malingering	..	..	..	..	..	..
	C. Physical examination	..	..	..	..	3	..
	Prophylactic	..	..	..	..	4	1
	Observation	..	..	..	..	1	..
TOTAL ..						47,924	16,381

PERHENTIAN ISLANDS

TRENGGANU

Scale 14 Miles to 1 Inch

REFERENCE

Metalled Road

